

Transduction of T-cells with [SNV-scFv-Env] vectors

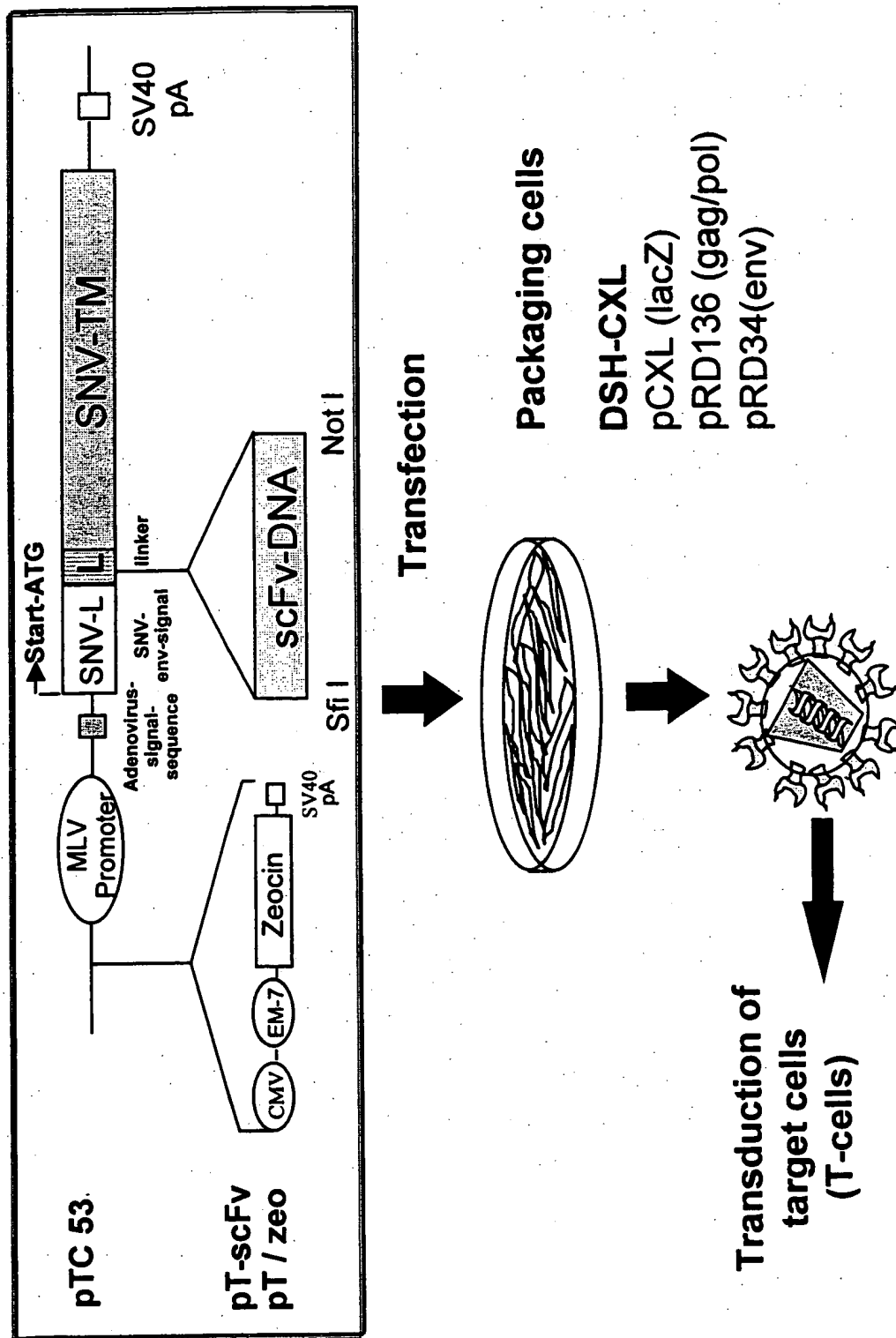


Fig. 1

Production of a SNV-scFv-Env vector library

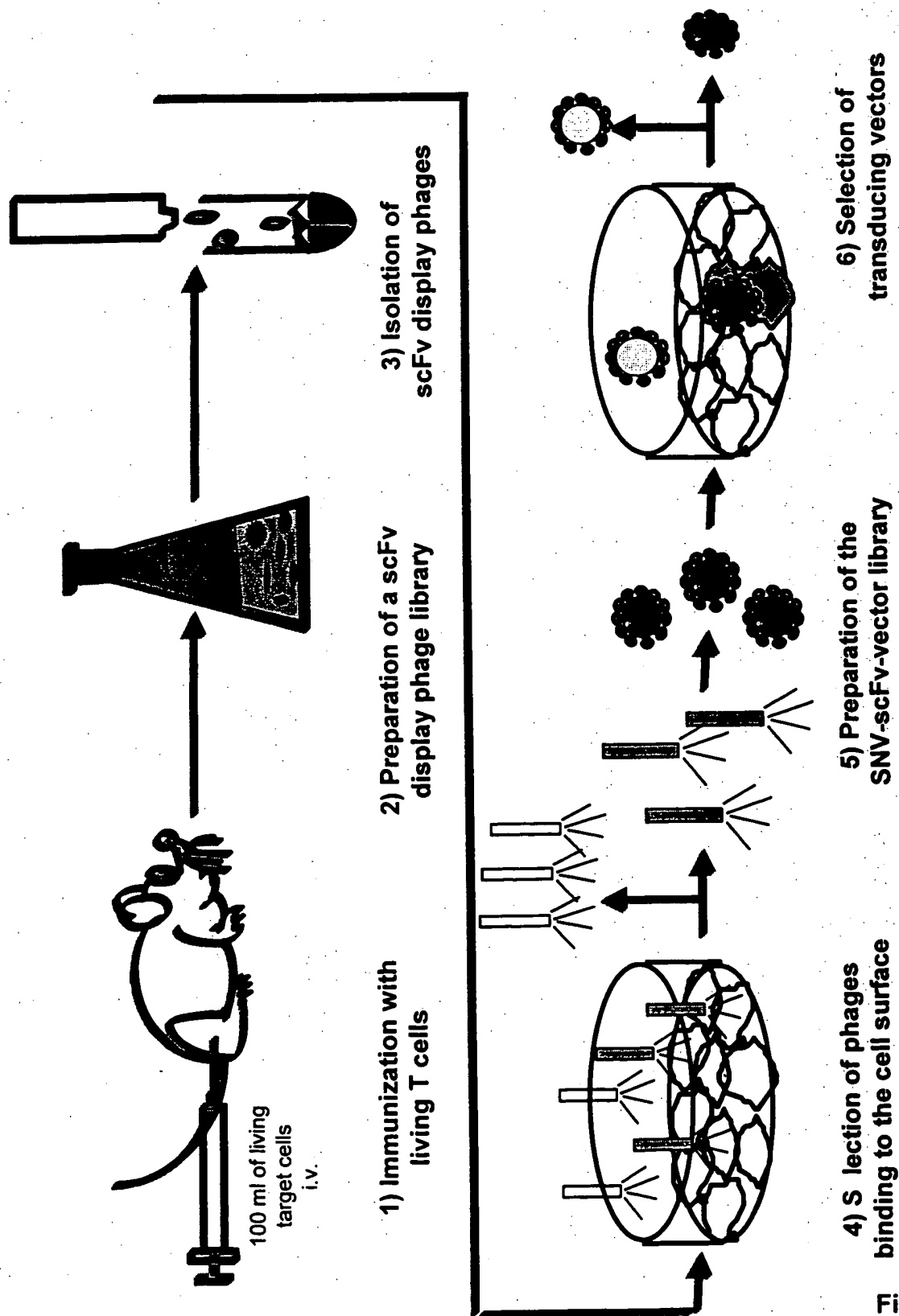


Fig. 2

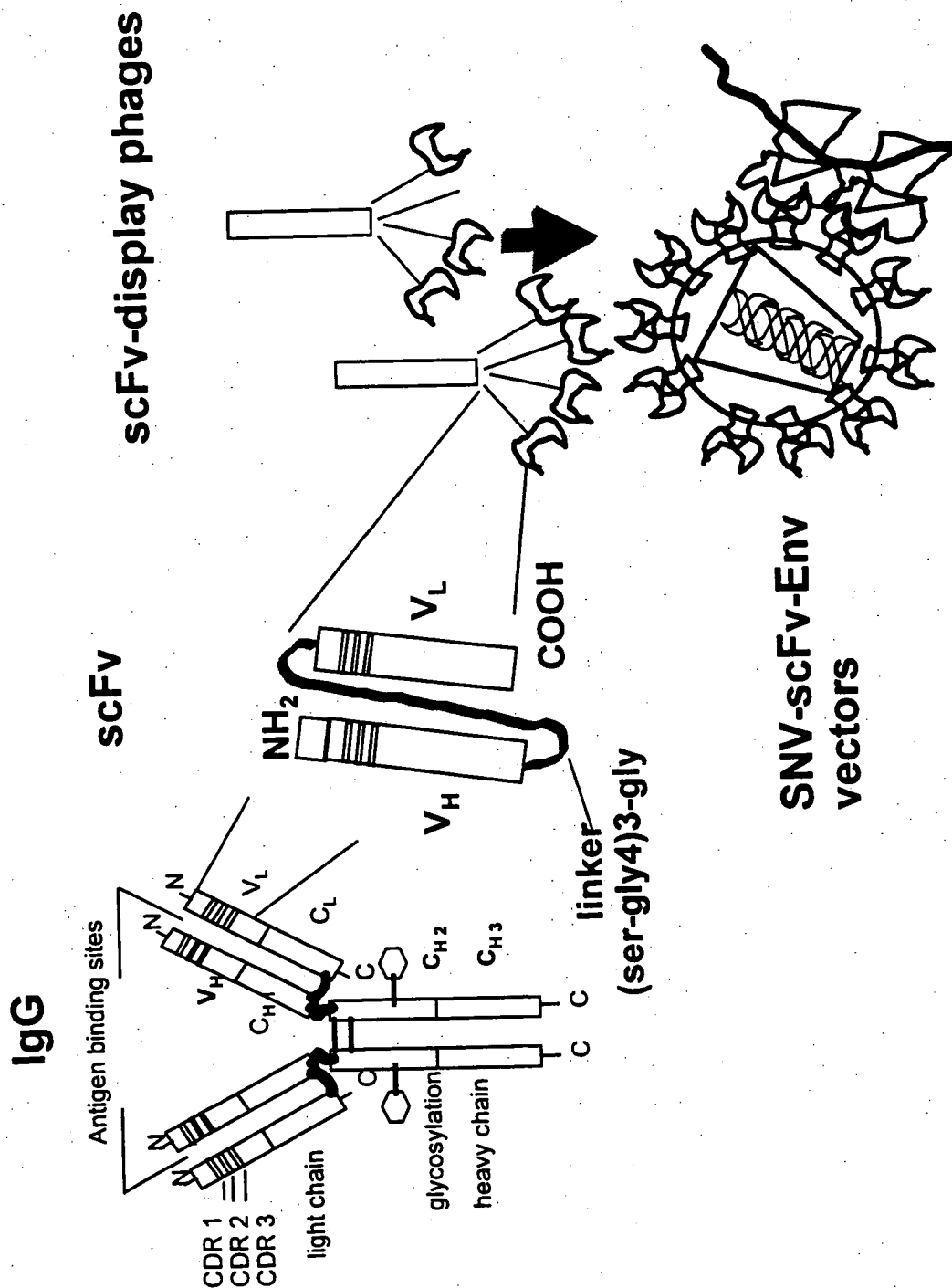


Fig. 3

PTC53.SEQ [1 to 4776] -> Genes

DNA sequence 4776 b.p. GAAATCCCTGAC ... AGGAGGGGAGT linear

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1  GAAATCCCTGACGAGGCTGAGTAAATTAATTAAGATTATTTAGTCTCCAGAAAGGGGGGA ATG AAA GAC CCC ACC TGT AGG TTT CCC 90
10 K L A * M K D P T C R F G 9

91  AAG CTA GGT TAA GTACCCCATTTTCAGGC ATG GAA TAC ATA ACT GAG AAT AGA GAA GTT CAG ATC AAG GTC AGG 170
10 K L A * M E K Y I T E N R E V Q I K V R 16

171  AAC AGA TGG AAC AGC TGA AT ATG GGC CAA ACA GGA TAT CTG TGG TAA GCAGTTCCTCCCTCCCTCAGGCCAAGACAG ATG 253
17 N R W N S * M G Q T G Y L W * M 1

254  GAA CAG CTG AAT AUG GGC CAA ACA GGA TAT CTG TGG TAA GCAGTTCCTCCCTCCCTCAGGCCAAGACAG ATG GTC CCC 334
2 E Q L N M G Q T G Y L W * M V P 3

335  AGA TGC GGT CCA GGC CTC AGC AGT TTC TAG ACAAACATCAG ATG TTT CCA GGG TGC CCC AAG GAC CTG AAA TGA CCGT 412
4 R C G P A L S S F * M F P G C P K D L K 11

413  GTCCCTTATTGAACTAAGCATACTAGTTCCTCTCTCGCTTCCTGCTCCCTGCTCCTCAATTAAGAGCCACACACCTCTACTCGGG 512

513  GCGCAGTCTCCGATTGCTAGTCCCTCCCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 612

613  GCGAAGCCCTGCGGCTCCGAAAGGTACTCCCTCCCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 712

713  GTACAGTCCGAGGTAGGCTGACACCGTCCCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 808
1 M M * 3

809  TGGGCGTCTTCAGAGCGGG ATG GTC GAG GTG AGG TGT GGC AGG CTT GAG ATC TGG CCA TAC ACT TGA GTGACA ATG ACA 888
1 H V E V R C G R L E I W P Y T * M T 2

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889	TCC	ACT	TTC	TTC	TCT	CCA	CAG	GTG	TCC	ACT	CCC	AGG	TCC	AAC	GGG	ATC	CGA	GCT	CCA	CCG	GGG	TAA	AGGTGGCT	965			
3	S	T	L	P	F	S	P	Q	V	S	T	P	R	S	N	R	I	R	A	P	P	R	*	25			
966	GGG	AGC	CGG	GTG	TCC	ACC	ACT	CTG	TCC	AGG	CTC	CTT	GTG	GCT	TGG	TGG	GGG	TTT	GGG	ACC	ACT	GCC	GAA	1129			
1																							35				
1055	CAG	GGT	AAA	GTT	GAC	CAG	GGG	AGC	AAA	ATC	CTA	ATT	CTC	CTT	CTG	TGG	TGG	GGG	TTT	GGG	ACC	ACT	GCC	GAA	1129		
11	E	G	K	V	D	Q	A	S	K	I	L	I	L	L	V	A	W	G	F	G	T	T	A	E	35		
1130	GTT	TGG	ACT	CCC	GGC	TCC	GGG	GGC	GGT	GGT	TCT	GGT	GGT	GGT	GGT	GGT	TCT	TCT	GGT	GGT	GGT	GGT	TCT	1204			
36	V	S	T	A	G	S	G	G	G	G	S	G	G	G	S	G	G	G	S	G	G	G	S	60			
1205	GGC	GGC	AGC	CCA	GTC	CAG	TTT	ATC	CCC	CTG	CTT	GTG	GGT	CTA	GGG	ATT	TCA	GGG	GCT	ACA	CTT	GCT	GGA	ACG	1279		
61	G	A	S	P	V	Q	F	I	P	L	L	V	G	L	G	I	S	G	A	T	L	A	G	T	85		
1280	GGG	CTT	GGG	GTC	TCC	GTT	CAC	ACT	TAT	CAC	AGG	CTC	TCT	AAI	CMA	TIG	ATT	GAA	GAT	GTC	CAG	GCT	TCA	GGG	1354		
86	G	L	G	V	S	V	H	T	Y	H	K	L	S	N	Q	L	I	E	D	V	Q	A	L	S	110		
1355	ACC	ATC	AAI	GAC	CTA	CAG	GAC	CAI	ATT	GAC	TCC	CTG	CTC	GAG	GTT	CTC	TTA	CMA	AAI	AGA	AGA	GGG	TTA	GAC	CTA	1429	
111	T	I	N	D	L	Q	D	Q	I	D	S	L	A	E	V	V	L	Q	N	R	R	G	L	D	L	135	
1430	TTG	ACT	GGC	GAA	CAA	CGA	CGA	CGA	ATA	TGT	CTC	CCA	CTC	CAG	GAI	TGT	TGT	TTT	TAC	GCT	AAC	AAG	TGG	GGT	ATC	1504	
136	L	T	A	E	Q	G	G	G	I	C	L	A	L	Q	E	K	C	C	F	Y	A	N	K	S	G	I	160
1505	GTA	CGT	GAC	AAG	ATC	CGA	AAA	CTC	CAA	CAG	GAC	CTT	ATC	GAG	AGA	AAA	CGT	GCA	CTG	TAC	GAC	AAC	CCC	CTG	TGG	1579	
161	V	R	D	K	I	R	K	L	Q	E	D	L	I	E	R	K	R	A	L	Y	D	N	P	L	W	185	
1580	AGC	GGC	TTG	AAC	GCC	TTC	CTT	CCA	TAT	TTG	CTA	CCC	TTG	TGA	GGC	CCC	CTG	TTT	GGG	CTC	ATA	TTG	TTT	CTG	ACC	1654	
186	S	G	L	N	G	F	L	P	Y	L	L	P	L	L	G	P	L	F	G	L	I	L	F	L	T	210	



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1655 CTC GCG TGC ATT ATG AAG ACC CTG ACT GCG ATT ATA CAT GAC AAA ATT CAG GCA GTA AAA TCC TAG CACTAGTC 1731
 211 L G P C I M K T L T R I I H D K I Q A V K S * 233
 1732 CCGACGTACAGCCACTGCCACAGAG ATG GAT ACC CTA GCG GTC CGA TGG TCT AAG AAT TCT CGA GTC TAA GATCGATCGAAT 1815
 1 M D T L G V R W S K N S R V * 15
 1816 TCTTAGGTC AAT ATT TGA CCGA ATG TAC AAG AGC AGT GGG GAA TGT GGG AGG GGC TTA CGA AGG CCT TAA GTGACTA 1894
 1 M I * M Y K S S G E C G R G L R R P * 16
 1895 GGTACCCGATCCAGAC ATG ATA AGA TAC AAT CAT GAG TTT GGA CAA ACC ACA ACT AGA ATG CAG TGA AAAAA ATG CTT 1972
 1 M I R Y I D E F G Q T T R M Q * M L 2
 1973 TAT TTG TGA AATTGTG ATG CTA TTG CTT TAT TTG TAA CCATTATAGCTGCGATTAACAGTAAACAAATTCATTCTTT 2060
 3 Y L * M L L L Y L * 7
 2061 ATG TTT CAG GTT CAG GCG GAG GTG TGG GAG GTT TTT TAA ACCAAGTAAACCTCTACAAATCAGCTGGCAAGCTAGATCTAGCTT 2147
 1 M F Q V Q G E V W E V F * 13
 2148 GCGTAAATC ATG GTC ATA GCT GTT TCC TGT TGA AAA TTG TTA TCC GCT CAC AAT TCC ACA CAA CAT ACG AGC CGG 2222
 1 M V I A V S C V K L L S A H N S T Q H T S R 22
 2223 AAG CAT AAA GTG TAA AGCTGGGTCCTA ATG AGT GAG CTA ACT CAC AAT AAT TCC GTT GCG CTC ACT GCG CGC TTT 2300
 23 K H K V * M S E L T H I N C V A L T A R F 16

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[illegible]

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Applicant(s): Klaus Cichutek et al.
CELL-SPECIFIC RETROVIRAL VECTORS WITH ANTIBODY
DOMAINS AND METHOD FOR THE PRODUCTION THEREOF FOR
SELECTIVE GENE TRANSFER

3326 AAT GCT TAA TCAGTGAAGCAGCTATCTCAGCGTCTGTCATTCGTTGATTCATCCATAGTTCCTGACTGCCCGTCGTTGATCTACTACTACGATACCGCA 3422
10 N A 12

3423 GGGCTTACCATCTGGGCGGAGTCTGCA ATG ATA CCG CGA GAC CCA CCG TCA CCG GCT CCA GAT TTA TCA GCA ATA AAC CAG 3504
1 18

3505 CCA GGC GCG AGG GCG GAG CCG AGA AGT GGT GGT CCA ACT TTA TCC GGC TCC ATC CAG TCT ATT AAT TGT TGC CCG 3579
19 P A G R A E R S G P A T L S A S I Q S I N C C R 43

3580 GAA GCT AGA GTA AGT AGT TCG CCA GTT AAT AGT TTG CCG AAC GTT GGT GGT CCA ACT GCT ACA GGC ATC GTG GTG TCA 3654
44 E A R V S S S P V N S L R N V A I A T G I V V S 68

3655 CCG TCG TCG TTT GGT ATG CTT TCA TTC AGC TCC GGT TCC CAA CCA TCA AGG CGA GTT ACA TCA TCCCC ATG TTG 3729
69 R S S F G H A S F S S G S Q R S R V T 2

3730 TCG AAA AAA GCG GTT AGC TCC TTC GGT CTT CCG ATC GTC AGA AGT AAG TTG GCG CCA GTG TTA TCA CTC ATG 3804
3 C K K A V S S F G P P I V V R S K L A A V L S L M 27

3805 GTT ATG CCA CCA CTG CAT AAT TCT CTT ACT GTC ATG CCA TCC GTA TGC TTT TCT GTG ACT GGT GAG TAC TCA 3879
28 V M A A L H N S L T V M P S V R C F S V T G E Y S 52

3880 ACC AAG TCA TTC TGA GAAATGAT ATG CCG CGA CCG AGT TCC TCT TCC CCG TCA ATA CCG CAT AAT ACC CCG 3954
53 T K S F M R R P S C S C P A S I R D N T A 17

3955 CCA CAT AGC AGA ACT TTA AAA GTG CTC ATC AAT GCA AAA GGT TCT TCG GCG CGA AAA CTC TCA AGG ATC TTA CCG 4029
18 P H S R T L K V L I I G K R S S G R K L S R I L P 42

4030 CTG TTG AGA TCC AGT TCG ATG TAA CCGACTGTGCAACCGACATCTTCAGCAATCTTTTACTTTCACAGGTTTCTGGGTGCGCAAAAC 4121
43 L L R S S S M 50

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4122 AGGAGGCAAA ATG CCG CAA AAA AGG GAA TAA GGGGACACGGAA ATG TTG AAT ACT CAT ACT CTT CCT TTT TCA ATA 4199
 1 M P Q K R E M L N T H T L P F S I 11
 4200 TTA TTG AAG CAT TTA TCA GGG TTA TTG TCT CAT GAG CGG ATA CNT ATT TGA ATG TAT TTA GAA AAA TAA ACAATA 4275
 12 L L K H L S G L L S H E R I H I M Y L E K 6
 4276 GGGTTCCCGCACNTTCCCGCAAGTCCACCTGACGCTAAGAAACATTATTATC ATG ACA TTA ACC TAT AAA AAT AGG CGT ATC 4365
 1 M T L T Y K N R R I 10
 4366 ACG AGG CCG TTT CTT 4440
 11 T R P F R L A R F G D D G E N L M Q L P E T V 7
 4441 ACA GGT TGT CTG TAA GGG ATG CCG GGA CCA GAC AAG CCC GTC AGG CCG CCG CCG CCG CCG CCG CCG CCG CCG 4516
 8 T A C L M P G A D K P V R A R Q R V L A G V G 19
 4517 GGT GGC TTA ACT ATG CCG CAT CAG AGC AGA TTG TAC TGA GAGTCCACCAT ATG CCG TGT GAA ATA CCG CAC AGA TGC 4593
 20 A G L T M R H Q S R L Y M R C E I P H R C 9
 4594 GTA AGG AGA AAA TAC CCG ATC AGG CCG CAT TCG CCA TTC AGG CTG CCG AAC TGT TGG GAA GGG CGA TCG GTG CGG 4668
 10 V R R K Y R I R R H S P F R L R N C W E G R S V R 34
 4669 GCC TCT TCG CTA TTA CCG CAG CTG GCG AAA GGG GGA TGT CTT GCA AGG CGA TTA AGT TGG GTA ACG CCA GCG TTT 4743
 35 A S S L L R Q L A K G C A A R R L S W V T P G F 59
 4744 TCC CAG TCA CCA CGT TGT AAA ACG ACG GGC AGT 4776
 60 S Q S R R C K T A S 70

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